AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. Contract ID Code	Page	of Pages
	1	8

2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchase Req. No.	5. Project No. (if applicable)
001	Dec 14, 2005	NRMC0009-6-00001	

6. Issued By	Code	7. Administered By (If other than Item 6)	Code
NOS/NMFS/OAR ACQUISITION DIVISION /OFA65 1305 EAST-WEST HWY., SSMC-4 RM 7146 SILVER SPRING MD 20910	AJF50012	NOS/NMFS/OAR ACQUISITION DIVISION /OFA65 1305 EAST-WEST HWY., SSMC-4 RM 7146 SILVER SPRING MD 20910	

8. Name and Address of Contractor (*No., Street, County, and Zip Code)*	(X)	9A. Amendment of Solicitation No.
		DG133R-06-RP-0015
	X	9B. Date (*See Item 11)*
		Oct 25, 2005
		10A. Modification of Contract/Order No.
		10B. Date *(See Item 13)*

Code	Facility Code

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers [ ] is extended [X] is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning 0 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data (*if required)*
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13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(x)	A. This change order is issued pursuant to: (*Specify authority)* The changes set forth in item 14 are made in the Contract Order No. in item 10A.
	B. The above numbered Contract/Order is modified to reflect the administrative changes (*such as changes in paying office, appropriation date, etc.)* Set fourth item 14, pursuant to the authority of FAR 43.103 (b)
	C. This supplemental agreement is entered into pursuant to authority of:
	D. Other (*Specify type of modification and authority)*

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return copies to the issuing office.

14. Description of Amendment/Modification (*Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

The purpose of this Amendment is:

1. To provide answers to questions received on SBIR Subtopics. See Attachment.

2. To delete 52.227-14, Rights in Data-General.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name and Title of Signer (*Type or Print)*		16A. Name and title of Contracting Officer (*Type or Print)*	
15B. Contractor/Offeror (Signature of person authorized to sign)	15C. Date Signed	16B. United States of America (Signature of Contracting Officer)	16C. Date Signed

SCHEDULE

Item No.	Supplies/Services	Quantity	Unit	Unit Price	Amount
0001	Small Business Innovation Research Program (SBIR) FY2006	1	EA	_____	_____

Amendment #1
2006 SBIR

Questions are in bold type. Answers (A.) follow.

Business Questions/Responses:

1. **I am a new small business and do not have past clientele to complete the Past Performance Questionnaires. Is this a requirement, or an additional tool for review? If required, is there any alternative, such as references?**

A. It is a requirement. Any previous work experience of the principal investigator or the individuals who are proposed to do the work may be included.

2. **Is there any way of a (fisheries related) project being funded that was not included in the 2006 SBIR topics? Are they a guideline or exclusive?**

A. No, please see the website www.fbo.gov under Vendors, Department of Commerce (DOC) NOAA, Posted dates November 16, 2005 for the SBIR solicitation, which states that unsolicited proposals are not accepted.

3. **Can we speak to the person most interested in this topic?**

A. No.

4. **The '06 SBIR now requests a survey of past performance.**

A. Noted. Please follow the directions as described in the solicitation pertaining to the Past Performance survey.

5. **I want to make sure in Section C you are looking for information that we call 'costing sheet'. Are you asking for completed task cost or sub-task breakdown?**

A. Please follow directions as stated. See pages 61 and 62 of Attachment 1, Sections 9.3 and 9.4.

6. **Assuming success in developing such a product, notwithstanding the language in section 5.4 (Proprietary Information, Inventions, and Patents), does the awardee retain the development or intellectual property rights to the Decision Support Tool?**

A. See Solicitation Sections 5.4.3 and 5.4.4.

Technical Questions/Responses:

1. **Subtopic 8.3.8E: Do you really want a 10cm ice/water thermistor string, or something a bit longer?**

A. This is at the proposer's discretion.

2. **Subtopic 8.3.8E: What is the target size and weight limits?**

A. This is at the proposer's discretion.

3. **Subtopic 8.3.8E: What airborne platforms will be used to deploy the AXIB's?**

A. There is no specific hard requirement for a delivery system or weight/size of the AXIB. The major issue is having them be heavy enough to break through the slipstream beneath the aircraft.

4. **Subtopic 8.4.1N, Airborne Lidar Outlier and Feature Analysis Development: Would you please define the phrase "Category 3 points"?**

A. "Category 3" points are points that are not classified as either real features or false returns.

5. **Subtopic 8.4.1N Airborne Lidar Outlier and Feature Analysis Development: What are the anticipated ranges of values for along-range and cross-range spatial resolution from the lidar systems of interest? This affects feature extraction capability.**

A. The range of spatial resolutions we have been working with are between 0.5 m and 1.0 m in the along and across track.

6. **Subtopic 8.3.12W Incident Meteorologist (IMET) Communications Equipment: What sort of communication data rates need to be supported?**

A. Minimum 1 MB on the receive and 250K on the transmit.

7. **Subtopic 8.3.12W Incident Meteorologist (IMET) Communications Equipment: Do we assume that the system must operate on batteries or is there some other source of power (i.e., generator)? If it is battery Operated, is the battery part of the system we deliver? Is there a standard Government battery the system must be designed to run on? How many hours of operation are required before batteries can be replaced or recharged?**

A. Electricity is provided (generator or other means). No battery required with this unit.

8. **Subtopic 8.3.12W Incident Meteorologist (IMET) Communications Equipment: What sort of view of the sky can be assumed? Will the device be set up under a thick forest canopy, in a ravine, on a hilltop? What is the worst case deployment scenario that should be designed for?**

A. Normally will have an open sky to the south. However, worst case would be in a box canyon or dispatched to Alaska or Hawaii with an extremely low angle of sight to geostationary satellites.

9. **Subtopic 8.3.12W Incident Meteorologist (IMET) Communications Equipment: Is there a maximum limit on size or weight? Should we assume it is carried by a single person?**

A. Yes, it will be carried by a single person. At a minimum, it must fit into a case 41" x 24" x 18" and must weigh no more than 75 pounds.

10. **Subtopic 8.3.12W Incident Meteorologist (IMET) Communications Equipment: Are there any specific requirements in terms of an operator display? What (if any) information needs to be conveyed to the operator?**

A. The proposer shall provide its own display/development software that shall be compatible with related general business/office use software. NOAA will require antennae pointing software and description of the display in data formats which shall be transmitted to the operator.

11. **Subtopic 8.3.12W Incident Meteorologist (IMET) Communications Equipment: Can you clarify the meaning of the last sentence in paragraph 2 that states "…an easily portable satellite communications system that is complete from start to finish"? Specifically, what does "from start to finish" define?**

A. Essentially, we need an easily portable and easily deployable system with a fast internet connection that will work in various outdoor conditions.

12. **Subtopic 8.1.3N Autonomous Underwater Vehicle: Is NOAA interested in funding a new AUV system developed to specifically apply to the needs of this topic, or just fine tuning existing hardware like the REMUS?**

A. This is at the proposer's discretion.

13. **Subtopic 8.1.3N: What is NOAA's hardware timeline?**

A. This is not intended as a hardware development project.

14. **Subtopic 8.1.3N: What are the problems / complaints / or limitations with existing systems? (e.g. cost, depth capability, size, weight, not adaptable to different missions, compatibility with sensor systems of choice, turning circle, top speed, etc.)**

A. Weight, size

15. **Subtopic 8.1.3N: What are the basic performance specs other than turning circle? (e.g. max depth, max speed over ground (SOG) in what speed current?)**

A. Max depth <50 meters, speed ~4-5kts

16. **Subtopic 8.1.3N: What size water samples are desired?**

A. Variable 10-25 ml depending on mission

17. **Subtopic 8.1.3N: What types of operational control are of interest? (e.g. profiling, plume tracking, multiple teaming AUVs, etc.)**

A. The greater the flexibility in mission operation the better.

18. **Subtopic 8.2.11R: Sensor for Determining Physical and Optical Properties of Aerosol Particles: What is the product of Phase I? Can it be a paper design, with Phase II reserved for prototype fabrication?**

A. Phase 1 is essentially a feasibility study. A Phase II award is based upon Phase I results and the decision is made by NOAA.

19. **Subtopic 8.2.13R: Aerosol Instrumentation Package for Unmanned Aerial Vehicles (UAVs): What is the product of Phase I? Can it be a paper design, with Phase II reserved for prototype fabrication?**

A. Phase 1 is essentially a feasibility study. A Phase II award is based upon Phase I results and the decision is made by NOAA.

20. **Can we get some idea of who the reviewers will be (academics, NOAA researchers ...)?**

A. No.

21. **Subtopic 8.2.3G: Extreme Climate Events--Decision Support Tool for Hail Storms:**

1. Within the last few years, what work has been performed on behalf of or by NOAA on this subtopic?

A. Research should be done by the proposer.

2. Other than the solicitation itself is there any other source(s) of information (that is, references, workshops, etc.) you would recommend regarding this subtopic?

A. Research should be done by the proposer.

22. **My research has to do with raising shrimp, which take approximately 150 days. This is fine and will work within the allotted period, but will there by any slack or room to construct testing facility/prep. Test site?**

A. NOAA awards Phase 1 contracts for a six (6) month period of performance.

23. **Subtopic 8.1.6R Drifting Buoy Technology**

Is NOAA's primary interest in developing a sensor integration and platform development (preferred) or sensor development / adaptation?

Primary interest is in the development of drifting platforms, capable of measuring the surface or the water column, designed to allow the integration of chemical and biological sensors.

What is NOAA's expected timeline to hardware?

A laboratory testable system is desired in Phase I with field testing occurring in Phase II.

What is projected yearly quantity used of this new drifting buoy technology? Have there been any studies on projected usage vs. cost?

To be determined pending the successful completion of the SBIR research project.

What is desired minimum and maximum life span?

Deployment duration of 2 weeks can answer valuable questions; longer periods provide higher value information and is more desirable.

What data feedback capability is desired?

Data reported to GOES satellites – with options for other high bandwidth local systems such as IEEE802.11

What if any time lag is acceptable?

Daily reporting of profiles collected 6 times per day, minimum.

What degree of autonomy is NOAA interested in?

Deploy and forget for GOES systems – less desirable is the capability to modify mission parameters during deployment for systems with full-duplex communication.

Are there problems / complaints or limitations with existing systems? (e.g. life, cost, size, weight, depth capability, ease and cost of deployment, not adaptable to different missions or other sensor systems of choice,… etc.).

Lack of ability to integrate sensors.

24. Subtopic 8.3.1R Cheap and Light Sonde:

A. It has been determined by NOAA that Subtopic 8.3.1R, Cheap and Light Sonde shall be deleted from this solicitation. These services will best be procured using standard acquisition procedures. Please see RFI that was published in Federal Business Opportunities on December 6, 2005.

25. Subtopic 8.3.10N In-Field Detection of Harmful Algal Bloom Toxins and/or Toxigenic Species: Is the In-field detector envisioned as the end result of Phase I or rather the proof of concept and progress toward the "In-field" detector what is actually desired?

A. Phase I only requires a proof of concept. Hardware development, e.g., the "In-field" detector, would be proposed as part of the SBIR Phase 2 program, which is a follow-on competition after completion of the Phase I project.

26. Based on information from the Subtopic, I feel that I may have a patent pending that is very closely related.

A. Consider submitting a proposal addressing the Subtopic requirements using in- house technology as a basis for responding to the Subtopic. Other responders to the Subtopic may use a different design or technological approach.

N:SBIR:Amend #1:12/13/05